

**REMARKS**

Reconsideration is requested.

Claims 1-23 are pending. Claims 1, 2, 6, 10 and 15 are the pending independent claims. Claims 1, 6 and 10 have been revised to further defined the substituents as described, for example, on pages 63-65 of the specification. Claims 1, 6 and 10 have been revised without prejudice, to advance prosecution. The claimed enamines are not found in or suggested by the cited art .

The Examiner's comments in §5., spanning pages 5-7 of the Office Action dated April 15, 2009 are noted. As there is no rejection or objection of the claims or specification stated therein, no further comments from the applicants in response are believed to be required. The applicants do not necessarily agree with the Examiner's determinations stated on pages 5-7 of the Office Action.

The objections to claims 15, 17 and 19 noted in § 6. on page 7 of the Office Action dated April 15, 2009 are obviated by the above amendments. No new matter has been added. Withdrawal of the objections is requested.

The following documents have been cited by the Examiner in the Office Actions of May 1, 2008 and April 15, 2009 as the basis of rejections and/or provisional rejections:

- D1 - JP2003-12619 (Kobata);
- D2 - U.S. Patent No. 6,210,847 (Miyauchi);
- D3 - U.S. Patent No. 4,898,799 (Fujimaki);
- D4 - U.S. Patent No. 6,270,936 (Tanaka);

- D5 - U.S. Patent No. 5,292,604 (Nukada);
- D6 - U.S. Patent No. 6,489,072 (Sasaki);
- D7 - U.S. Patent No. 5,250,990 (Fujimura);
- D8 - JP08-185089 (Mitsushi);
- D9 - U.S. Patent No. 4,522,483 (Matsumoto);
- D10 - U.S. Patent No. 6,178,303 (Ishii);
- D11 - U.S. Patent No. 7,175,956 (Obata);
- D12 – U.S. Patent Application No. 10/993,770;
- D13 – JP 10-239875 (Tatsuya);
- D14 – U.S. Patent No. 5,238,765 (Senoo);
- D15 – U.S. Patent No. 5,554,472 (Aizawa);
- D16 – Diamond, Handbook of Imaging Materials (pp 413 and 415);
- D17 – U.S. Patent No 7,457,565 (Fujii);
- D18 – U.S. Patent No. 7,449,269 (Sugimura);
- D19 – U.S. Patent No. 7,416,824 (Kondoh);
- D20 – U.S. .Patent Application No. 10/559,187<sup>1</sup>;
- D21 - U.S. .Patent Application No. 10/575,0097;
- D22 - U.S. .Patent Application No. 10/544,454; and
- D23 - U.S. .Patent Application No. 11/198,405.

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<sup>1</sup> The application issued as U.S Patent No. 7,534,539 on May 19, 2009.

Specifically, the Office Action of April 15, 2009 contains the following art rejections and provisional rejections, wherein the cited art is identified by the above-noted document, or "D", numbers and the numbering of the rejections is continued from the applicants Amendment of August 18, 2008:

19) Claims 10 and 11 have been rejected under Section 103 as allegedly having been obvious over D13;

20) Claims 1, 2, 4 and 22 have been rejected under Section 103 as allegedly having been obvious over D13;

21) Claims 1, 2, 3 and 21 have been rejected under Section 103 as allegedly having been obvious in view of a combination of D13 and D2;

22) Claims 1, 2, 3 and 21 have been rejected under Section 103 as allegedly having been obvious in view of a combination of D13 and D4;

23) Claims 6-9 and 15 has been rejected under Section 103 as allegedly having been obvious in view of a combination of D13 and D5;

24) Claims 10-14 have been rejected under Section 103 as allegedly having been obvious in view of a combination of D13 and D6;

25) Claims 16-20 have been rejected under Section 103 as allegedly having been obvious in view of a combination of D13, D7, D8, D14, D9 and D10;

26) Claims 16-20 have been rejected under Section 103 as allegedly having been obvious in view of a combination of D13, D8, D9, D10, D4 and D15;

27) Claims 1-3, 16, 18 and 21 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of D17;

28) Claims 1, 2, 4, 16, 18 and 22 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of D17 "in view of" D3;

29) Claims 1, 2, 5, 6, 15, 16, 18 and 23 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of D17 "in view of" D4;

30) Claims 6-9, 15, 16 and 18 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of D17 "in view of" D5;

31) Claims 10-14, 16 and 18 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of D17 "in view of" D6;

32) Claims 1 and 4 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of D18 "in view of" D3;

33) Claims 1, 5 and 6 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of D18 "in view of" D4;

34) Claims 6-9 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of D18 "in view of" D5;

35) Claims 10-14 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of D18 "in view of" D6;

36) Claim 1 has been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19;

37) Claims 1-3 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19 "in view of" D2;

38) Claims 1 and 4 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19 “in view of” D3;

39) Claims 1, 5 and 6 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19 “in view of” D4 ;

40) Claims 6-9 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19 “in view of” D5;

41) Claims 10-14 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 3-9 of D19 “in view of” D6;

42) Claims 1-3, 16, 18 and 21 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 5 and 11-13 of D20 “in view of” D2;

43) Claims 1, 2, 4, 16, 18 and 22 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 5 and 11-13 of D20 “in view of” D3;

44) Claims 1, 2, 5, 6, 15, 16, 18 and 23 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 5 and 11-13 of D20 “in view of” D4;

45) Claims 10-14 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 5 and 11-13 of D20 “in view of” D6;

46) Claims 1-3, 16, 18 and 21 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7 of D21 “in view of” D2;

47) Claims 1, 2, 4, 16, 18 and 22 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7 of D21 “in view of” D3;

48) Claims 1, 2, 4, 5, 6, 16, 18 and 23 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7 of D21 “in view of” D4;

49) Claims 6-9, 15, 16 and 18 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7 of D21 “in view of” D5;

50) Claims 10-14, 16 and 18 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7 of D21 “in view of” D6;

51) Claims 1-3, 16, 18 and 21 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of D22 “in view of” D2;

52) Claims 1, 2, 4, 16, 18 and 22 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of D22 “in view of” D3;

53) Claims 1, 2, 5, 6, 15, 16, 18 and 23 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of D22 “in view of” D4;

54) Claims 6-9, 15, 16 and 18 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of D22 “in view of” D5;

55) Claims 10-14, 16 and 18 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of D22 “in view of” D6;

56) Claims 1-3, 16 and 21 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 4-6 of D23 “in view of” D2;

57) Claims 1, 2, 4, 16 and 22 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 4-6 of D23 “in view of” D3;

58) Claims 1, 2, 5, 6, 15, 16 and 23 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 3-6 of D23 “in view of” D4; and

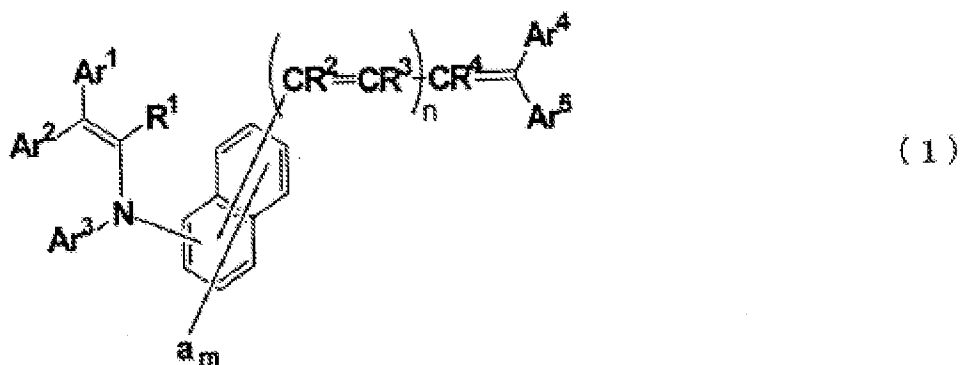
59) Claims 6-9, 15 and 16 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 4-6 of D23 “in view of” D6

Reference is made in the following remarks to the above rejections (19) – (59) and documents D1-D23.

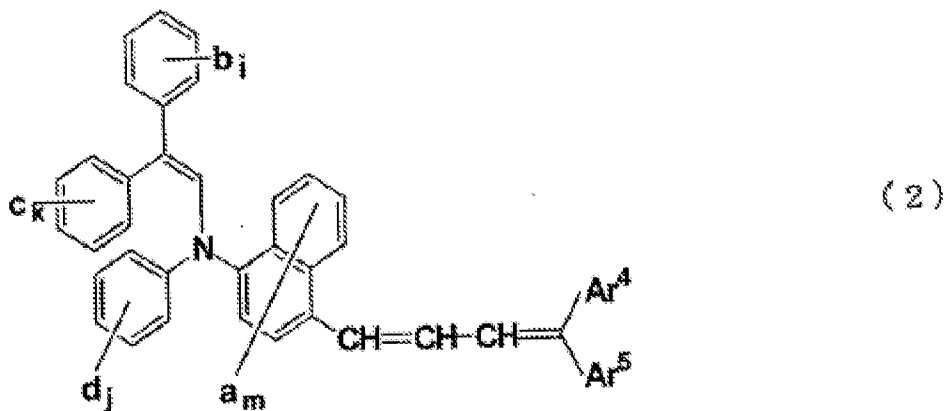
**Rejections (19)-(26)**

Rejections (19)-(26) are traversed. Reconsideration and withdrawal of the rejections are requested in view of the following distinguishing comment.

Independent claims 1, 6 and 10 all require an enamine compound represented by the general formula (1)



Independent claims 2 and 15 require an enamine compound represented by the following general formula (2):

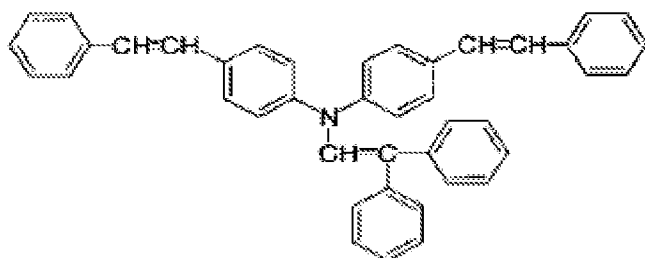




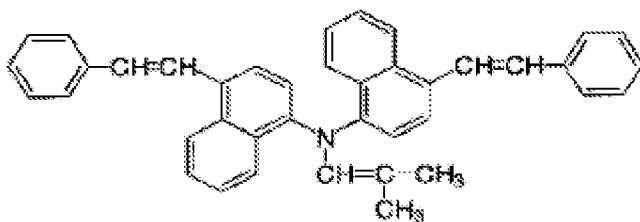
At a minimum, the enamine compounds of the claims would not have been obvious from the cited art.

Specifically, the Examiner relies on document D13 to allege the obviousness of the enamines of the claimed invention. The Examiner asserts that it would have allegedly been obvious to have modified the following compound (20) of document D13, in view of the following compound (40) of document D13 to have made a compound “within the compositional limitations of enamine compound formula (I) recited” in the claims<sup>2</sup>:

( 2 0 )



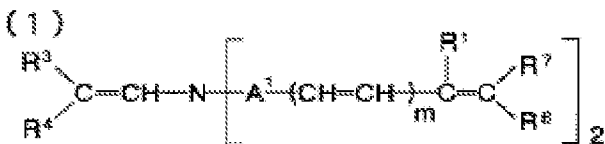
( 4 0 )



The Examiner asserts that alteration of the styryl group  $-\text{CH}=\text{CH}-\text{C}_6\text{H}_5$  of compound (20) above with a styryl moiety  $-(\text{CH}=\text{CH})-\text{CH}=\text{CH}-\text{C}_6\text{H}_5$ , such that “m” of the following general formula (1) of document D13 is 1:

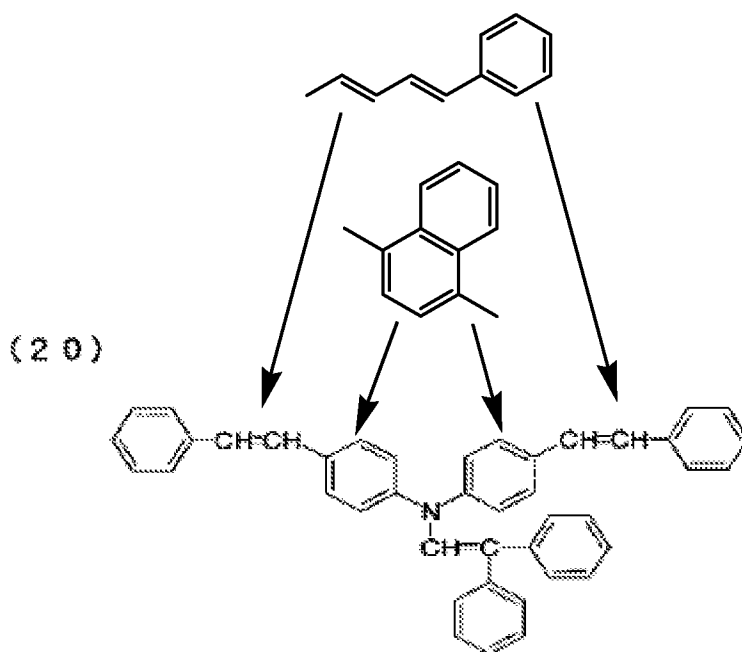
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<sup>2</sup> See for example, page 10 of the Office Action dated April 15, 2009.

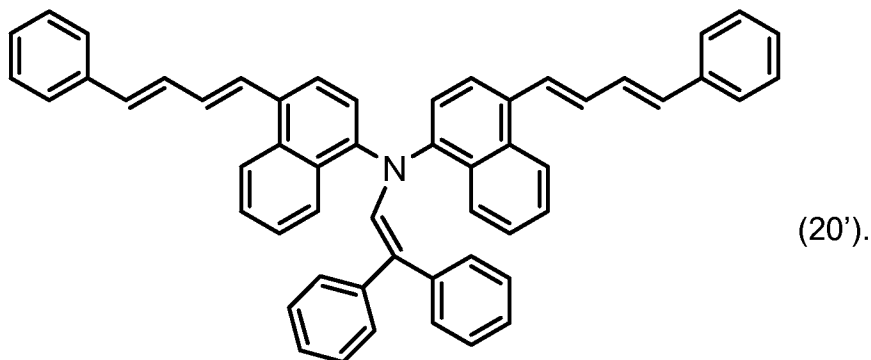


, and replacing the phenylene ( $A^1$  of the general formula (1) of D13) of compound (20) above with a naphthalene group, as is shown in compound (40) above, will allegedly obviously produce an enamine compound of the claims.

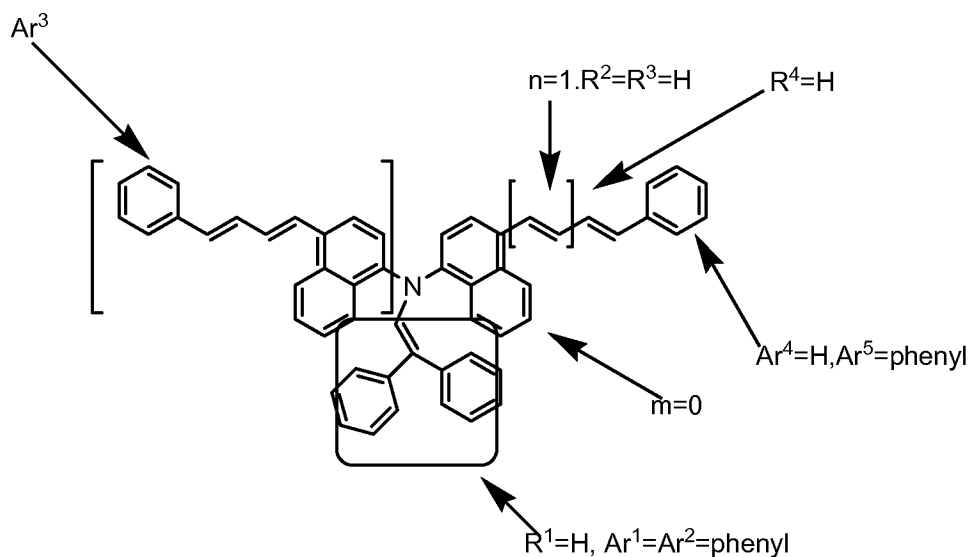
The Examiner's modifications of compound (20) above are provided in the following schematic:



The Examiner has asserted therefore that the following symmetrical modified compound (20) of document D13 (hereinafter compound (20')) would have been obvious:



The Examiner's compound (20') of document D13 is understood to be applied to the compounds of formula (1) of independent claims 1, 6 and 10 as follows:



The applicants submit however that the enamines of independent claims 1, 6 and 10 do not include such a symmetrical structure.

The Examiner's compound (20') of document D13 is not within the "compositional limitations of the enamines of independent claims 1, 6 and 10, nor in claims 3-5, 7-9, 11-14, and 16-20 (in part), dependent therefrom. It would not have been obvious from

document D13, or documents combined therewith in the above-noted rejections (21)-(26), to have made the enamines of independent claims 1, 6 and 10, and claims 3-5, 7-9, 11-14, and 16-20 (in part), dependent therefrom. Independent claims 1, 6 and 10, and claims 3-5, 7-9, 11-14, and 16-20 (in part), dependent therefrom, are submitted to be patentable over document D13 and the combinations of art cited in the above-noted rejections (21)-(26).

Independent claims 2 and 15, and claims 16-20 (in part) and claims 21-23, dependent therefrom, are also submitted to be patentable over the teachings of document D13 and the combinations of art cited in the above-noted rejections (20)-(23) and (25) as, at a minimum, the enamines of independent claims 2 and 15 would not have been obvious from the teachings of document D13 or the combinations of art cited in the above-noted rejections (20)-(23) and (25).

Specifically, the Examiner is understood to believe that the Examiner's compound (20')

"is also within the compositional limitations of formula (2) recited in instant claim 2, when the "d" groups of formula (2) bond to each other to form a cyclic structure."<sup>3</sup>

The enamines of formula (2) of independent claims 2 and 15 do not include the structure of the Examiner's hypothetical symmetrical compound (20').

The Examiner's compound (20') of document D13 is not within the "compositional limitations of the enamines of independent claims 2 and 15, nor in claims 16-20 (in part) and claims 21-23, dependent therefrom. It would not have been obvious from

document D13, or documents combined therewith in the above-noted rejections (20)-(23) and (25), to have made the enamines of independent claims 2 and 15, and claims 16-20 (in part) and claims 21-23, dependent therefrom. Independent claims 2 and 15, and claims 16-20 (in part) and 21-23, dependent therefrom, are submitted to be patentable over document D13 and the combinations of art cited in the above-noted rejections (20)-(23) and (25).

The secondary references of documents cited in the above-noted rejections (21)-(26) are not believed to cure the above-noted deficiencies of document D13.

Withdrawal of the above-noted rejections (19)-(26) is requested.

**Rejections (27)-(59)**

Rejections (27)-(59) are obviated by the attached Terminal Disclaimers and related fees. The attached Terminal Disclaimers are being filed without prejudice, to advance prosecution. Entry of the attached Terminal Disclaimers and withdrawal of the above-noted rejections (27)-(59) are requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required in this regard.

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<sup>3</sup> See pages 12, 13, 16 and 18 of the Office Action dated April 15, 2009.

ISHIDA ET AL.  
Appl. No. 10/554,099  
Atty Ref.: 1114-218  
Amendment  
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Respectfully submitted,

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